

## Federal Lands Highways Program

### Fiscal Year 2006 Base Program Overview

**Federal Lands Highways Program (FLHP).** The National Park Service (NPS) is committed to addressing the deferred facility maintenance backlog, which includes both facility and road requirements. Additionally, with four of six congressionally mandated parkways completed, the NPS seeks to continue work on the final two, both located in the Southeast Region. To meet future challenges, the NPS is also continuing to pursue alternative transportation systems. All these focus areas help meet the NPS objectives of fostering environmental stewardship, promoting energy conservation, reducing noise and air pollution, enhancing access, supporting tourism and increasing public enjoyment and conservation awareness.

The NPS owns and operates approximately 5,456 paved miles of public park roads, 6,544 miles of unpaved roads, and 1,803 associated structures (bridges, culverts and tunnels), which are all eligible for FLHP funding. In addition, there are 110 alternative transportation systems in 96 park units utilizing trolleys, rail systems, canal boats, ferries, tour boats, cable cars, snow coaches, trams, buses and vans. Intelligent Transportation Systems are also in use, including traveler information systems, traffic management systems and entrance gate fast-pass systems. Of the 110 systems, 38 are operated by local public transit agencies, 14 are owned and operated by parks and 58 are operated by concessioners. These systems offer attractive and convenient public access via bus or shuttle for visitors and park employees and also enhance recreational travel and tourism, protect natural resources, and provide sustained economic development in gateway communities surrounding parks.

**Alternative Transportation Systems Program (ATSP).** The legislatively mandated study, under section 3039 of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), called "Study of Alternative Transportation Needs in National Parks and Related Public Lands", completed by the United States Department of Transportation (USDOT), identifies and supports the need for continuation of an ATSP. Many popular National Park sites are experiencing very high seasonal visitation levels that are continuing to increase. For some gateway communities, clogged roads, insufficient parking, and other problems of site access are now constraining the number of visitors or the length of time they stay in the community. In some instances, transit can expand the number of visitors to the site and increase the revenue spent by visitors in the surrounding communities.

Impacts to resources and the visitor's experience can be reduced through the use of alternative transportation systems. Transit helps mitigate inadequate parking demands, whose expansion often conflicts with resource preservation needs. Air pollution is also reduced by decreasing the total number of vehicles accessing the sites. New transit technologies are also quieter and more fuel efficient, operating at reduced noise and air pollution levels.

**Park Roads and Parkway Program (PRPP).** Public Law 105 -178, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21), authorized the PRPP funding levels at \$165 million annually through FY 2003, and was extended by amendments to the Act through FY 2004. These Highway Trust Funds dollars address critically needed transportation needs in three categories:

Category I: \$100-120 million annually to prevent further deterioration of the existing park roads and parkways infrastructure.

Category II: \$10-30 million annually to support completing congressionally authorized parkways.

Category III: \$5-15 million annually to foster the Alternative Transportation Systems Program (ATSP).

Funding levels for these categories were adjusted annually to accommodate project scheduling, balance program priorities and address legislative adjustments such as a reduction of some \$20 million annually due to Section 1102(f), Title 23, United States Code.

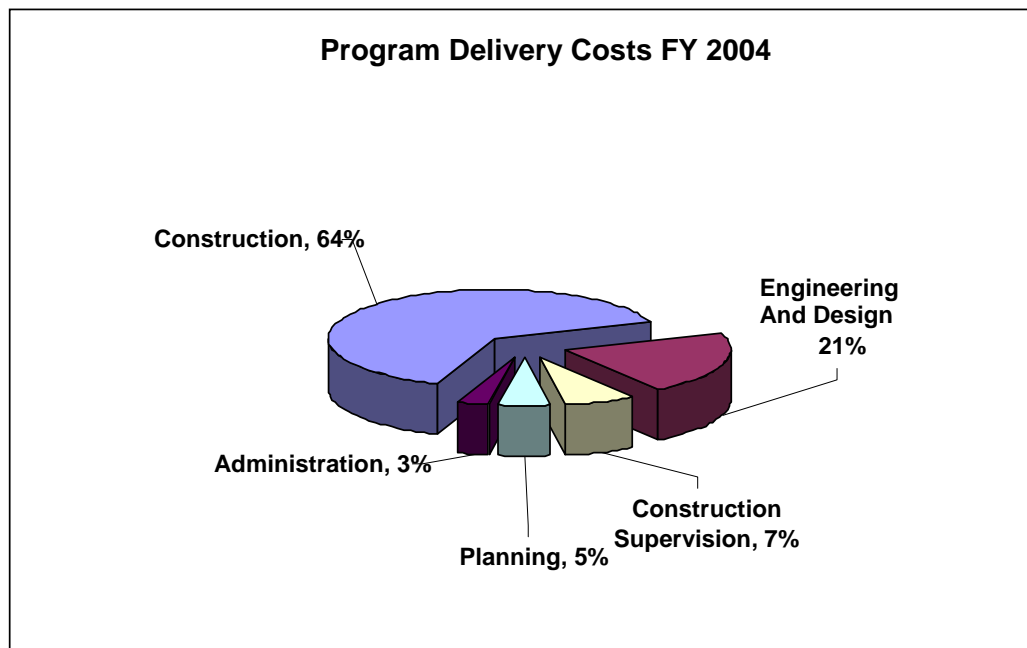
## FY 2004 Program Performance Accomplishments

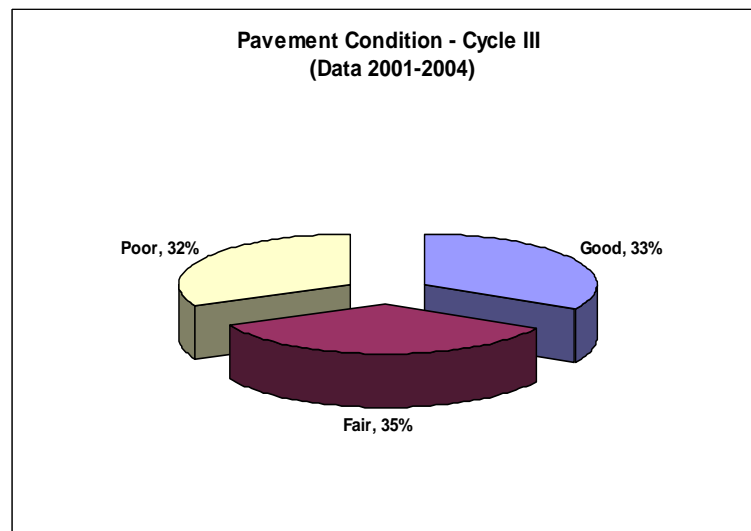
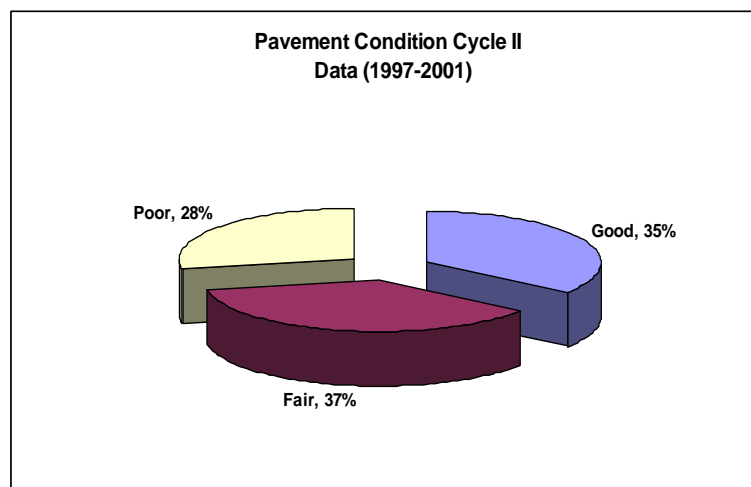
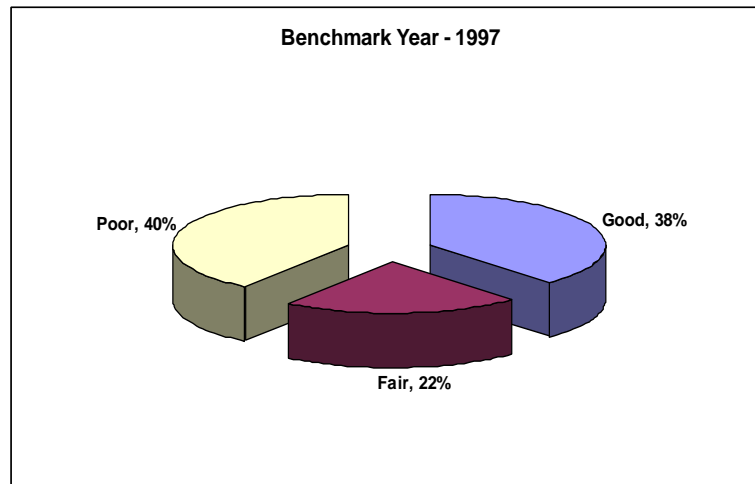
### 1. Program Delivery Costs and the Facility Management Software System (FMSS)

Currently, the NPS uses the roadway pavement condition rating for understanding and tracking roadway conditions. With the deployment of the FMSS, the NPS is further fine-tuning total roadway condition through inventory and assessment of all the roadway components including retaining walls, drainage systems and signs.

The NPS has identified program management performance measures in five key construction program categories: planning, engineering design, construction, construction supervision, and administrative costs. Using industry standards for these categories, the NPS has developed indicators for measuring program efficiency and effectiveness. The chart below reflects the preliminary FY 2004 PRPP delivery costs. They meet established program objectives even where they exceed the standards. For example, the "Park Legacy Program" supports a significant construction program increase over a six-year period. Accordingly, design and preliminary engineering is larger than normal, to ramp up and produce on-the-shelf rehabilitation projects and provide a smooth transition in delivering a larger program.

For over a decade, the funding level for the PRPP was insufficient to keep the NPS road system from deteriorating. The roadway pavement deteriorated at an average rate of 2-3 % per year. In 1998, TEA-21 increased the PRPP funding level for the rehabilitation of roads and bridges, based on a FHWA life-cycle analysis that indexed a proposed funding level commensurate with the condition of roads and bridges. The TEA-21 targets were to provide enough funding to stabilize the condition of the system.





These charts compare in general terms what is happening to the system. In general, there has been a steady trend towards significantly slowing down system deterioration, saving millions of dollars in repair costs. The slight slip in performance between cycles II and III likely reflect annual changes in funding availability such as the \$20 million reduction referenced above. Because technology and the state of the practice for scientifically quantifying pavement condition has evolved and changed since 1997, the data does not necessarily correlate well at greater detail.

## 2. Deferred Maintenance, Capital Replacement Costs and Facility Condition Index

The NPS and FHWA are continuously reviewing performance goals and measures to effectively and efficiently manage the program. For example, NPS established a FY 2002 Facility Condition Index (FCI) baseline to help better describe pavement and bridge conditions and track performance in the coming fiscal years. The tables below show the FY 2002 baseline and the FY 2004 estimated deferred maintenance (DM), current replacement value (CRV) and FCI:

	(\$000)		FCI*	PCR**
	Current Replacement Value	Deferred Maintenance		
FY 2002				
Roads	8,450,100	3,250,105	0.38	74
Bridges	1,694,135	155,972	0.09	
FY 2004				
Roads	10,835,683	4,753,109	0.44	69
Bridges	1,749,684	145,718	0.08	

\*FCI condition indexes for good, fair and poor roads and bridges have not been developed. FHWA has been requested to develop the appropriate values for Good, Fair, Poor and "ground true" for acceptance by the scientific community. In addition, FHWA is investigating improving the state of the practice for identification of cost factors. The same methodologies were used between 2002 and 2004 with the cost factors being adjusted for inflation.

\*\*PCR represents Pavement Condition Rating. PCR is a pavement condition value based on a rating of 1-100 with less than 60 being poor; 61-84 being fair; and 85-100 being good. It is based on the culmination of pavement rutting, cracking, patching and roughness.

Overall, the performance indicated by the above charts show the same trend toward significantly slowing down system deterioration as evidenced by the previous pie charts.

### FY 2005 Planned Program Performance

With the reauthorization of the Highway Trust Fund expected to occur in 2005, the Administration legislative package called, "Safe, Accountable, Flexible and Efficient Transportation Equity Act of 2003," or SAFETEA, proposed the PRPP be funded at \$1.9 billion over six years for three categories of need. FY 2004 was funded via several extensions at the TEA-21 level of \$165 million.

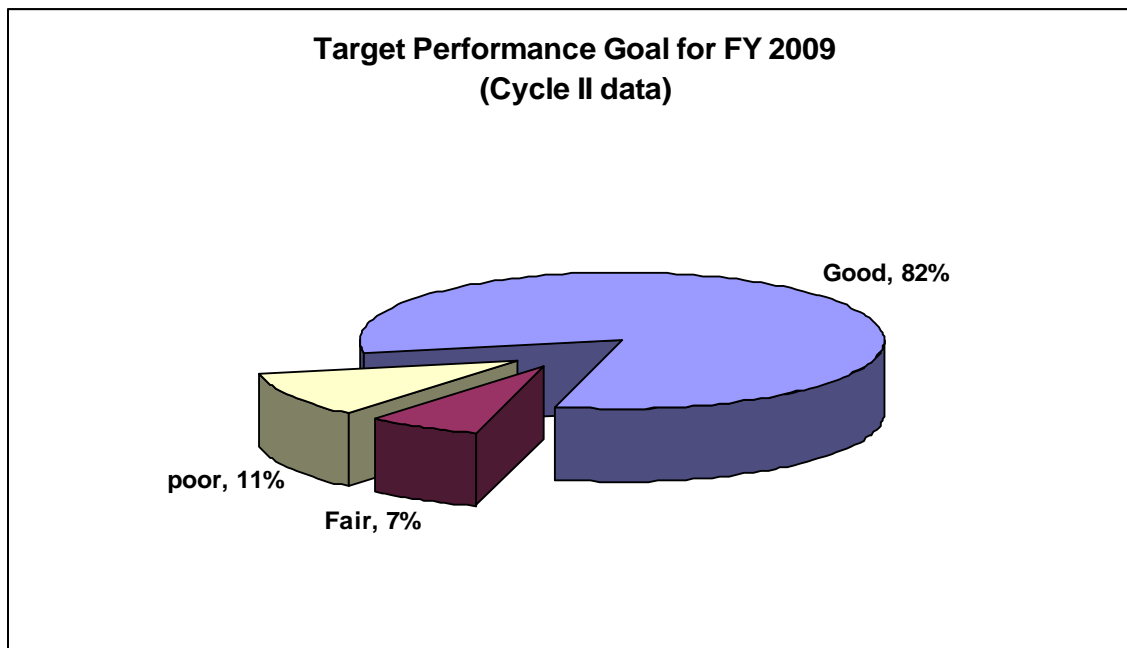
NPS should make progress towards meeting the President's commitment to address the deferred maintenance backlog, giving priority and focus to the following three categories:

- Category I: \$280 million towards meeting the President's commitment to address the deferred maintenance backlog for roads and bridges.
- Category II: \$10 million towards completing the design work for the next construction phase of the Foothills Parkway and multi-use trails along the Natchez Trace Parkway.
- Category III: \$20 million to continue to plan and build ATSP at high visitation parks throughout the Service.

As was done in previous years, the FY 2005 funding level for these categories will be adjusted to accommodate project scheduling, balance PRPP priorities and legislative adjustments, such as reductions due to FHWA Administrative takedowns and Title 23, Section 1102(f).

Target performance goals will be reevaluated and adjusted once reauthorization has occurred, to account for the actual legislative annual funding level, the availability of new inventory and condition data, and the delay in the passage of the Highway Trust Fund reauthorization. Meanwhile, based on a SAFETEA funding level of \$1.9 billion over six years and using the inventory and condition data collected between 1997 and 2001, the target performance goals are as follows for each category:

Category I: \$270-300 million annually to restore the existing roads (i.e., pavement and bridges) to “good condition” (i.e., a Pavement Condition Rating of 85 and elimination of Structurally Deficient Bridges). The 2009 target Facility Condition Index for pavement would be .20 from the current .38. The bridge’s Facility Condition Index would be less than .09. As shown below, this funding level would result in approximately 82% of the systems pavement in “good” condition, 7% in “fair” condition and 11% in “poor” condition\*.



\* Note, FHWA is in the process of reevaluating these numbers, using the current inventory and condition assessment data collected between 2001 and 2004. Accordingly, this target performance goal may need to be adjusted.

Category II: \$3-10 million annually to continue to construct both the Foothills Parkway “missing link” and the multi-use trails around key urban areas along the Natchez Trace Parkway. The NPS would have completed or have underway, 20-30 percent of these two initiatives by FY 2009.

Category III: \$15-20 million annually to plan transportation systems and integrate visitor access and mobility using a combination of transportation technologies, facilities, and system management strategies. Due to the volume of demands for Alternative Transportation funding, the NPS will be developing a five year plan for the program in FY 2005 to insure the limited funds are most effectively targeted.

A list of projects for FY 2005 taken from the 5-Year Road Maintenance and Repair Inventory is undergoing review by the Service and the Federal Highway Administration and will be provided at a later date.

In FY 2004, PRPP coordinated, scheduled and tracked 868 projects in various stages (planning to construction completion stages), in 133 parks, in 7 regions and 42 states.

**PRPP Program Delivery Costs (2004):**

- Administration – 3%
- Planning – 5%
- Construction Supervision – 7%
- Preliminary Engineering – 21%
- Construction – 64%

Please observe that the preliminary design and engineering is higher than normal because the program is ramping up the number of pre-design projects in anticipation of a larger program in 2006 and beyond to meet the President’s “Park Legacy Program” to address the NPS deferred maintenance backlog.

## Performance Summary Tables: Line Item Construction and Maintenance

The National Park Service Line Item Construction and Maintenance Activity focuses on construction and maintenance of National Park Service facilities. These facilities include the historic structures, visitor centers, housing, roads, water and wastewater systems, and electrical systems necessary to manage park resources and support visitor access, safety, and satisfaction within the national parks. Line Item Construction and Maintenance accomplishments support three DOI Strategic Goals, including: "Protect the Nation's natural, cultural and heritage resources;" "Provide recreation opportunities for America;" and, "Safeguard lives, property and assets, advance scientific knowledge, and improve the quality of life for communities we serve for recreation and serving communities."

The changes to the NPS budget, represented by the President's Budget, affect the effort and consequently the results of managing national park lands. The following measures of performance reflect those changes in the aggregate.

### RESOURCE PROTECTION GOALS – Protect Natural, Cultural and Heritage Resources

Resource Protection: Improve health of watersheds, landscapes and marine resource	FY 2003 Actual	FY 2004 Actual	FY 2005 Enacted	FY 2005 Revised Plan	FY 2006 plan	Change in Performance 2005 Plan to 2006	Long-term Target (2008)
<b>Outcome Goal 1.3: Resource Protection.</b> Protect cultural and natural heritage resources							
<b>Intermediate Outcome:</b> Reduce degradation and protect cultural and natural heritage resources. <b>Intermediate Outcome Measures (Key and Non-Key) and PART Outcome Measures</b>							
Facilities Condition: Facilities are in fair to good condition as measured by Facilities Condition Index (SP, BUR IVa11A)	UNK	0.21	TBD – in FY 04 from MRPS	0.21 From FMSS	0.21	0	0.21

### SERVING COMMUNITIES GOALS – Safeguard property and financial assets, advance scientific knowledge, and improve the quality of life for communities we serve

<b>End Outcome Goal 4.1: Serving Communities.</b> Protect lives, resources, and property							
Serving Communities: Protect lives, resources, property	FY 2003 Actual	FY 2004 Actual	FY 2005 Enacted	FY 2005 Revised Plan	FY 2006 plan	Change in Performance 2005 Plan to 2006	Long-term Target (2008)
<b>Intermediate Outcome:</b> Improve Public Safety and Security and Protect Public Resources from Damage <b>Intermediate Outcome Measures (Key) and PART Outcome Measures</b>							
Facility condition: Buildings (e.g., administrative, employee housing) in fair or better condition as measured by the Facilities Condition Index (SP, BUR IVa11B)	NA	0.13	TBD in FY 04 –from MRPA	FCI = 0.13 From FMSS	FCI = 0.13	0	FCI = 0.13
Employee Housing: % of employee housing units in fair, good, and excellent condition as measured by the Facilities Condition Index (FCI) based on condition assessments and data in FMSS. (BUR IVa5)	NA	18% (954 of 5,300)	19% (1,007 of 5,300) 53 added in FY05	No change	22% (1,166 of 5,300) 159 added in FY06	15.8% (159 units)	25% (1,325 of 5,300) 106 added in FY08
Facility condition: Other facilities, including roads, dams, trails, bridges are in fair or better condition as measured by the appropriate Facilities Condition Index (SP, BUR IVa10F)	Not measured	0.30	TBD in FY 04 –from FMSS	0.25 (0.05 improvement in FY05)	0.23 (0.02 improvement in FY06)	0.02 (8%)	0.22 No change in FY08
Condition of all NPS regular assets as measured by a Facility Condition Index (Score of 0.14 or lower is acceptable) (PART FM-1, long-term output)	NA	0.23	0.22	0.21 (0.02 improvement in FY 05)	No change	-0.02 (-9.1%)	0.16 (0.02 improvement in FY 08)
Condition of all NPS buildings as measured by a Facility Condition Index (score of 0.10 or lower is acceptable) (PART FM-2)	NA	0.13	0.15	improvement in FY 05)	0.13 (0.01 improvement in FY 06)	0.01 (7%)	0.11 (0.01 improvement in FY 08)
Condition of high-priority NPS buildings as measured by a Facility Condition Index (Score of 0.05 or lower means portfolio is in good condition on average) (PART FM-3, long-term output)	NA	0.13	0.08 (0.05 improvement in FY 05)	No change	0.05 (0.03 improvement in FY 06)	0.03 (37.5%)	0.04 (0.01 improvement in FY 08)

(SP) - DOI Strategic Plan goal, (PART) - OMB PART Measure (FM – Facility Management), (BUR) - NPS specific goal, TBD - to be determined (see above), NA - not available or an output goal, UNK - unknown or unavailable.